Amendments to the Claims

Claim 1 (original) A compound of Formula I:

where:

R¹ is hydrogen, halo, or C₁-C₄ alkyl;

m is 0, 1, 2, 3, or 4;

R is $-(CH_2)_{n-}$, $-CH(CH_3)$ -, $-C(CH_3)_2$ -, $-CH_2$ - Q^1 - CH_2 -, or

-CH(OH)-CH(OH)-CH₂-;

Q¹ is CH(OH) or carbonyl;

n is 0, 1, 2, 3, or 4;

W-X-Y is $-CH_2-CH_2-CH_2-$, $-CH(R^3')-N(R^2)-CH(R^3)-$, $-N(R^4)-C(O)-CH_2-$,

-C(O)-Q²-CH₂-, -CH(R³')-O-CH₂-, or -CH(R³')-N(R⁴)-C(O)-;

 Q^2 is $-N(R^4)$ - or $-CH_2$ -;

 R^2 is hydrogen, -(C₁-C₄ alkylene)- R^5 , C₅-C₇ cycloalkyl, tetrahydropyran-4-yl, pyridinyl, pyrimidinyl, triazolyl optionally substituted with amino, benzothiazol-2-yl, -C(S)-(morpholin-4-yl or C₁-C₄ alkoxy), -C(NR¹⁶)R¹⁷, -C(O)R⁶, -CO₂R⁷, -CO(NR⁸R⁹), -SO₂(NR⁸R⁹), -SO₂(C₁-C₄ alkyl), or an amino acid residue;

 R^3 and $R^{3'}$ are independently selected from the group consisting of hydrogen and C_1 - C_4 alkyl provided that only one of R^3 and $R^{3'}$ may be C_1 - C_4 alkyl;

R⁴ is hydrogen or C₁-C₄ alkyl;

 R^5 is hydrogen, pentahaloethyl or trihalomethyl, cyano, hydroxy, C_1 - C_4 alkoxy optionally substituted with C_1 - C_4 alkoxy, C_3 - C_6 cycloalkyl, phenyl optionally substituted with up to three substituents independently selected from the group consisting of halo and C_1 - C_4 alkoxy, pyridinyl, imidazolyl optionally substituted on a nitrogen atom with C_3 - C_6 cycloalkyl,

morpholin-4-yl, pyrrolidin-1-yl, - CO_2H , - $CO(C_1-C_4$ alkoxy), - $CO(NR^8R^9)$, - NR^8R^9 or - (morpholin-4-yl)carbonyl;

 R^6 is hydrogen, C_1 - C_{10} alkyl optionally substituted with up to three halo substituents, 1-amino-2-methoxyeth-1-yl, C_3 - C_6 cycloalkyl, pyridinyl optionally substituted with C_1 - C_4 alkyl, trifluoromethyl, carboxyl, or (C_1 - C_4 alkoxy)carbonyl, pyridinyl-N-oxide, pyrazinyl, pyrimidinyl, imidazolyl, morpholin-4-yl optionally substituted with up to two C_1 - C_4 alkyl groups, [1,4]oxazepin-4-yl, azetidin-4-yl, tetrahydropyran-4-yl, 3-methyl-6,7-dihydropyrrolo[1,2-a]imidazol-6-yl, piperazin-4-yl optionally substituted in the 4-position with phenyl or C_1 - C_4 alkyl, pyrrolidin-1-yl, piperidin-1-yl optionally substituted in the 4-position with oxo or geminal dimethyl, piperidin-4-yl optionally substituted in the 1-position with (C_1 - C_4 alkoxy)carbonyl or C_1 - C_4 alkyl, or -(C_1 - C_4 alkylene)- R^{10} ;

 R^7 is C_1 - C_6 alkyl optionally substituted with halo, 2-methoxyeth-1-yl, -(C_1 - C_2 alkylene)-(morpholin-4-yl or pyrrolidin-2-on-1-yl), or phenyl optionally substituted with one or two substituents independently selected from the group consisting of halo, C_1 - C_4 alkyl, C_1 - C_4 alkoxy, and trifluoromethyl;

 R^8 is hydrogen or C_1 - C_6 alkyl optionally substituted with C_1 - C_4 alkoxy;

 R^9 is hydrogen or C_1 - C_6 alkyl optionally substituted with C_1 - C_4 alkoxy;

 R^{10} is $-OCH_2CH_2OCH_3$, $-NR^{14}R^{15}$, C_3 - C_6 cycloalkyl, morpholin-4-yl, thiomorpholin-4-yl, 1,1-dioxothiomorpholin-4-yl, piperidin-1-yl, pyrrolidin-2-yl optionally substituted at the 1-position with C_1 - C_4 alkyl, or imidazolyl optionally substituted with nitro;

Ar is benzofur-4-yl, benzofur-7-yl, benzothien-4-yl, benzothien-7-yl, 1-(R¹¹)benzimidazol-4-yl, 1-(R¹¹)indol-4-yl, indol-7-yl, isoquinolin-5-yl, 2,3-dihydrobenzo-fur-4-yl, 2,3-dihydrobenzofur-7-yl, 1,3-dihydroisobenzofur-4-yl, 1,3-dihydroisobenzofur-5-yl, benzo[1,3]dioxol-4-yl, benzo[1,3]dioxol-5-yl, 2,3-dihydrobenzo[1,4]dioxin-5-yl, 2,3-dihydrobenzo[1,4]dioxin-6-yl, 2',2'-difluorobenzo[1,3]dioxol-4-yl, or 2',2'-difluorobenzo[1,3]dioxol-5-yl each optionally substituted in the phenyl ring with substituents R¹² and R¹³, or Ar is a group selected from imidazo[1,2-a]pyridin-3-yl optionally substituted with one or two substituents independently selected from the group consisting of halo, amino, C₁-C₄ alkyl, C₁-C₄ alkoxy, benzyloxy, cyano, and trifluoromethyl, 5,6,7,8-tetrahydroimidazo[1,2-a]pyridin-3-yl, imidazo[1,2-a]pyridin-3-yl, imidazo[1,2-a]pyrimidin-3-yl optionally substituted with amino, imidazo[1,2-c]pyrimidin-3-yl, imidazo[1,2-a]pyrazin-3-yl, imidazo[1,2-b]pyridazin-3-yl, imidazo[2,1-b]thiazol-3-yl, thiazolo[3,2-b][1,2,4]triazol-6-yl, furo[3,2-c]pyridin-7-yl optionally substituted with halo or -NR¹⁴R¹⁵, thieno[3,2-b]pyridin-7-

yl, pyrazolo[2,3-*a*]pyridin-3-yl, pyrazolo[1,5-*a*]pyridin-3-yl, or 4,5,6,7-tetrahydropyrazolo[1,5-*a*]pyridin-3-yl;

R¹¹ is hydrogen, C₁-C₄ alkyl, or -(CH₂)_P-G;

 R^{12} is halo, hydroxy, amino, C_1 - C_4 alkoxy, -NHC(O)(C_1 - C_4 alkyl), or

 $-O-(CH_2)_p-G;$

R¹³ is halo;

p is 2, 3, 4, or 5;

G is hydroxy or NR¹⁴R¹⁵;

 R^{14} and R^{15} are independently selected from the group consisting of hydrogen and C_1 ^{*} C_5 alkyl;

R¹⁶ is hydrogen or cyano,

 R^{17} is $-NR^8R^9$, C_1 - C_4 alkyl, morpholin-4-yl, or piperidin-1-yl; or a pharmaceutically acceptable salt thereof, provided that when n is 0, W-X-Y is not $-CH(R^{3'})-N(R^2)-C(O)-$.

Claim 2 (original): A compound of Claim 1 where Ar is benzofur-4-yl, benzofur-7-yl, or 2,3-dihydrobenzofur-7-yl optionally substituted in the phenyl ring with substituents R¹² and R¹³.

Claim 3 (original): A compound of Claim 1 where Ar is imidazo[1,2-a]pyridin-3-yl optionally substituted with one or two groups independently selected from halo, C_1 - C_4 alkyl, or C_1 - C_4 alkoxy.

Claim 4 (original): A compound of any of Claims 1, 2, or 3 where W-X-Y is $-CH(R^{3'})-N(R^2)-CH(R^3)-$.

Claim 5 (original): A compound of Claim 4 where R^2 is $-C(O)R^6$.

Claim 6 (currently amended): A pharmaceutical formulation comprising a compound of any of Claims 1-5 Claim 1 in combination with a pharmaceutically acceptable carrier, diluent or excipient.

Claim 7 (currently amended): A method of treating diabetes in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound of any of Claims 1.5 Claim 1.

Claim 8 (currently amended): A method of treating Alzheimer's disease in a mammal comprising administering to a mammal in need of such treatment an effective amount of <u>a compound any of Claims 1-5 of Claim 1</u>.

Claim 9 (currently amended): A method of inhibiting GSK-3 in a mammal comprising administering to a mammal in need of such treatment a GSK-3 inhibiting amount of a compound of any of Claims 1-5 Claim 1.

Claim 10 (New): A method of stimulating bone deposition in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound of Claim 1.